[62 FR 5912, Feb. 10, 1997]

### § 71.24 General license: Fissile material, limited moderator, controlled shipment.

(a) A general license is issued to any licensee of the Commission to transport fissile material, or to deliver fissile material to a carrier for transport, without complying with the package standards of subparts E and F of this part, if limited material is shipped in accordance with this section.

(b) The general license applies only to a licensee who has a quality assurance program approved by the Commission as satisfying the provisions of subpart H of this part.

(c) This general license applies only when—

(1) No package contains more than a Type A quantity of radioactive material;

(2) The packaging does not incorporate lead shielding exceeding 5 cm in thickness, tungsten shielding, or uranium shielding;

(3) Neither beryllium nor hydrogenous material enriched in deuterium is present;

(4) The total mass of graphite present does not exceed 7.7 times the total mass of uranium-235 and plutonium;

(5) Substances having a higher hydrogen density than water (e.g., certain hydrocarbon oils), are not present, except that polyethylene may be used for packing or wrapping;

(6) For fissile contents containing no uranium-233 and less than 1 percent by weight total plutonium, if the fissile radionuclides are—

(i) Not uniformly distributed, the maximum amount of uranium-235 per consignment does not exceed the value given in Table III of this part; or

(ii) Distributed uniformly and cannot form a lattice arrangement within the packaging, the maximum amount of uranium-235 per shipment does not exceed the value given in Table IV of this part;

(7) For fissile contents containing uranium-233 or more than 1 percent by weight plutonium, the total mass of fissile material per shipment is limited so that the sum of the number of grams of uranium-235 divided by 400, the number of grams of plutonium divided by 225, and the number of grams of uranium-233 divided by 250, does not exceed unity, as expressed in the formula:

$$\frac{\text{grams uranium} - 235}{400\,\text{g}} + \frac{\text{grams plutonium}}{225\,\text{g}} + \frac{\text{grams uranium} - 233}{250\,\text{g}} \leq 1;$$

(8) The transport must be direct to the consignee without any intermediate transit storage; and

(9) Shipment of these packages is made under procedures specifically authorized by DOT in accordance with 49 CFR part 173 of its regulations to prevent loading, transport, or storage of these packages with other fissile material shipments.

TABLE III—PERMISSIBLE MASS OF URANIUM-235 PER FISSILE MATERIAL SHIPMENT APPLICABLE TO § 71.24(C)(6)(I)

[Nonuniform distribution]

| Uranium enrichment in weight percent of uranium-235 not exceeding | Permissible maximum grams of uranium-235 per consignment |
|---|---|
| 20 | 520 |
| 15 | 560 |
| 11 | 600 |
| 10 | 640 |
| 9.5 | 655 |
| 9 | 675 |
| 8.5 | 690 |
| 8 | 710 |
| 7.5 | 730 |
| 7 | 750 |
| 6.5 | 780 |

TABLE III—PERMISSIBLE MASS OF URANIUM-235 PER FISSILE MATERIAL SHIPMENT APPLICABLE TO § 71.24(C)(6)(I)—Continued

[Nonuniform distribution]

| Uranium enrichment in weight percent of uranium-235 not exceeding | Permissible maximum grams of uranium-235 per consignment |
|---|---|
| 6 | 810 |
| 5.5 | 850 |
| 5 | 900 |
| 4.5 | 950 |
| 4 | 1,000 |
| 3.5 | 1,100 |
| 3 | 1,250 |
| 2.5 | 1,500 |
| 2 | 2,050 |
| 1.5 | 3,400 |
| 1.35 | 4,000 |
| 1 | 8,500 |
| 0.92 | 15,000 |

TABLE IV—PERMISSIBLE MASS OF URANIUM-235 PER FISSILE MATERIAL SHIPMENT APPLICABLE TO § 71.24(C)(6)(II)

[Uniform distribution]

| Uranium enrichment in weight percent of uranium-235 not exceeding | Permissible maximum grams of uranium-235 per consignment |
|---|---|
| 4 | 1,050 |
| 3.5 | 1,150 |
| 3 | 1,400 |
| 2.5 | 1,800 |
| 2 | 3,000 |
| 1.5 | 7,000 |
| 1.35 | 10,000 |

## Subpart D—Application for Package Approval

### § 71.31 Contents of application.

(a) An application for an approval under this part must include, for each proposed packaging design, the following information:

(1) A package description as required by § 71.33;

(2) A package evaluation as required by § 71.35; and

(3) A quality assurance program description, as required by § 71.37, or a reference to a previously approved quality assurance program.

(b) Except as provided in § 71.13, an application for modification of a package design, whether for modification of the packaging or authorized contents, must include sufficient information to demonstrate that the proposed design satisfies the package standards in effect at the time the application is filed.

(c) The applicant shall identify any established codes and standards proposed for use in package design, fabrication, assembly, testing, maintenance, and use. In the absence of any codes and standards, the applicant shall describe and justify the basis and rationale used to formulate the package quality assurance program.

### § 71.33 Package description.

The application must include a description of the proposed package in sufficient detail to identify the package accurately and provide a sufficient basis for evaluation of the package. The description must include—

(a) With respect to the packaging—

(1) Classification as Type B(U), Type B(M), or fissile material packaging;

(2) Gross weight;

(3) Model number;

(4) Identification of the containment system;

(5) Specific materials of construction, weights, dimensions, and fabrication methods of—

(i) Receptacles;

(ii) Materials specifically used as nonfissile neutron absorbers or moderators;

(iii) Internal and external structures supporting or protecting receptacles;

(iv) Valves, sampling ports, lifting devices, and tie-down devices; and

(v) Structural and mechanical means for the transfer and dissipation of heat; and

(6) Identification and volumes of any receptacles containing coolant.

(b) With respect to the contents of the package—

(1) Identification and maximum radioactivity of radioactive constituents;

(2) Identification and maximum quantities of fissile constituents;

(3) Chemical and physical form;

(4) Extent of reflection, the amount and identity of nonfissile materials used as neutron absorbers or moderators, and the atomic ratio of moderator to fissile constituents;

(5) Maximum normal operating pressure;

(6) Maximum weight;

(7) Maximum amount of decay heat; and